

Yonghyun Gwon

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EDUCATION

KYUNG HEE UNIVERSITY

Bachelor of Computer Engineering

Major in Software Convergence, Cumulative GPA: 4.33 / 4.5

Relevant Coursework: Game Engineering; Graphics; AI; HCI; Data Structure; Operating System; Computer Network, etc.

Seoul & Suwon, South Korea

Expected Aug 2026

WORK EXPERIENCE

SIMULATION DEVELOPER

MetaMotion X

Pangyo Techno Valley, South Korea

Sep 2024 – Dec 2024, Mar 2025 – Aug 2025

- Led LiDAR sensor simulation and CineCamera-based virtual camera system in Unreal Engine (Progressed during 2024).
- Refactored DDS-based messaging, Replay APIs, and asynchronous pathfinding flow. Improved system maintainability via polymorphic logging and event extraction.
- Implemented Unity Netcode multiplayer sync with RPCs and Network Variables; developed timeline-based replay UI and logging and exporting system based on pattern-based architecture.

BACKEND INTERN

M5ERS

Remote & San Jose, California, U.S.

Sept 2024 – Feb 2025

- Built a scalable backend architecture using Node.js with MVC and service-layer patterns.
- Developed low-level C programs for UART communication with FPGA devices, including I/O control via main loop implementation.

UNITY PROGRAMMER INTERN

FunctionBay

Pangyo Techno Valley, South Korea

Jul 2024 – Aug 2024

- Designed and implemented in-editor UI tools for unmanned vehicle simulation, including 3D-to-2D mapping, route visualization, and camera navigation similar with Unity's Scene View.
- Documented system architecture through code annotation and technical diagrams for cross-team understanding.

UNIX SERVER OPERATOR

Republic of Korea Army

Wonju, South Korea

May 2021 – Nov 2022

- Operated UNIX servers and performed backups, log audits, and system maintenance.
- Managed access and supported terminals across units; diagnosed routers and switches.

PROJECTS

SKINHAPTICS: EXPERIMENT IMPLEMENTATION FOR CHI 2025

Apr 2024 – Jul 2024

- Built a Unity-based VR system demonstrating multi-level softness feedback using only skin and virtual hand representation.
- Implemented vertex-based object deformation with Euler integration, distance-based attenuation, and tunable damping/restoration.
- Developed gesture-triggered object interactions via Oculus SDK with hand-skeleton tracking and orientation alignment.

AI-BASED MULTIPLAY LATENCY PREDICTOR

Nov 2024 – Dec 2024

- Led development of a DNN model to compensate latency-induced desync in Unreal Engine multiplayer simulations.
- Trained a PyTorch model (Residual + GLU layers) for position prediction from custom vehicle feature logs; integrated via ONNX and NNE plugin.
- Built a real-time inference pipeline in UE5 to format movement data and apply frame-by-frame prediction deltas.

AWARDS&ACTIVITIES

Awards: 1st – UNIJAM, 2nd – Immersive Korea Contest, University Portfolio Competition, Artistic SW Competition, 3rd – Software Festival(2023, 2024)

Activites: G-STAR Exhibitor (2023, 2024), Game Development Club – Study Leader (Unity, Unreal)

ADDITIONAL

Technical Skills: Advanced in C/C++ and C#, Unity and Unreal Engine. Proficient in Python, Node.js. Experienced with Github Desktop, Git, TortoiseSVN, Perforce(P4V), as well as Redmine, Jira, Azure DevOps.

Languages: Korean (native), English (fluent), Japanese (conversational)